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## Prototyping Marvels: MAR Designs Wins 3<sup>rd</sup> Rothberg Catalyzer with Innovative Orthotic Device

*Rothberg Catalyzer Shines Spotlight on Innovative Medical Concepts from Student-Led Teams Across Penn*

PHILADELPHIA, PA – October 21, 2019 – [Penn Health-Tech](#) is pleased to announce the winners of third [Rothberg Catalyzer at Penn](#), made possible by Jonathan Rothberg and organized by Penn Health-Tech: MAR Designs, created by Rebecca Li (MEAM'23), Ariella Mansfield (MEAM'23), and Michael Sobrepera (MEAM'21). The Rothberg Catalyzer at Penn Makerthon was held on October 19<sup>th</sup> and 20<sup>th</sup> at the School of Engineering and Applied Science on the University of Pennsylvania campus. The weekend event is a two-day makerthon that challenges interdisciplinary student teams to prototype and pitch their medical devices in hopes of addressing an unmet clinical need. It represents the summit of a six-week incubator featuring three workshops, known as Design Studios.

MAR Designs wowed the audience and judges with their orthotic device that aims to improve motor function and treat/prevent spasticity in patients in children with Cerebral Palsy. Parents of children have previously reported that current devices cause substantial discomfort to their children, leading to lack of compliance and preventing patient eligibility for surgeries. MAR Designs has developed a device that dynamically straightens out the wrist, allowing for greater range of motion while the child is asleep. The team hopes to decrease discomfort while providing parents with affordable, effective options that bring balance between caregiver and parent.

MAR Designs was selected at the Rothberg Catalyzer at Penn Makerthon, which featured 33 teams comprised of approximately 130 students ideating and prototyping the future of the health technology. The teams spend the first day of the catalyzer drafting and developing their rough concepts and working in labs within Penn Engineering to construct their vision. The second day marks a day of pitching and demoing in front of a panel of invited judges, competing for \$10,000 in cash to further develop their prototypes. Penn Health-Tech is proud to be a leader in the health devices and technology space.

The Rothberg Catalyzer marks the start of an exciting year of innovation in the Penn community. The students engaged in the Catalyzer go on to develop startups around their concepts using the many resources available within the Penn and Philadelphia entrepreneurial ecosystem.

The winners of the Rothberg Catalyzer are:

1. 1<sup>st</sup> Place: MAR Designs
2. 2<sup>nd</sup> Place: Team Splash
3. 3<sup>rd</sup> Place: ONE Scope
4. Pioneer Award: SchistoSpot

Previous winners of the Rothberg Catalyzer include HealthSense (now [Puzzi](#)), a Y-Combinator backed startup which focused on remotely monitoring all oxygen tanks in a hospital, nursing home or rehabilitation center, and Pillbot, a secure and affordable end-to-end medication reminder and dispensing system consisting of a web platform, user app, and a pill dispensing mechanism impervious to tampering.

Rothberg Catalyzer Judges:

- [Vanessa Chan](#), Practice Professor, Innovation and Entrepreneurship, Material Sciences and Engineering (MSE)
- [Craig Kenesky](#), Life Sciences IP, Practice Head at Wilson, Sonsini, Goodrich, and Rosati
- [David Monnerat](#), Senior Director, AI Product at Comcast
- [Sasha Schrode](#), CEO, Greppo Technologies
- [Mark Turco](#), Chief Innovation and Corporate Innovation Officer, Penn Center for Innovation
- [Brianna Wronko](#), CEO and Founder, Group K Diagnostics

Note on Abbreviations:

- C-Penn College of Arts & Sciences alum (bachelor's)
- G-Penn College of Arts & Sciences (master's)
- ENG – School of Engineering & Applied Science (bachelor's)
- GEN – School of Engineering & Applied Science (master's)

About Penn Health-Tech

Established in 2017, Penn Health-Tech Center For Health, Devices and Technology accelerates medical technology innovation on campus by creating structure and providing resources for innovators across The University of Pennsylvania, The University of Pennsylvania Health System, and The Children's Hospital of Philadelphia (CHOP), including idea vetting and support for programs from foundational to translational research. We unite Penn Medicine, Penn Engineering, and beyond to create transformative technologies that address the world's pressing healthcare needs. For more information, visit <https://healthtech.upenn.edu>